United Nations E/2000/48

Economic and Social Council

Distr.: General
16 May 2000

Original: English

Substantive session of 2000
New York, 5 July-1 August 2000
Item 13 (d) of the provisional agenda*
Economic and environmental questions: cartography

Fifteenth United Nations Regional Cartographic Conference for Asia and the Pacific

Report of the Secretary-General

Introduction

1. The Fifteenth United Nations Regional Cartographic Conference for Asia and the Pacific, convened in accordance with Economic and Social Council decision 1997/221 of 18 July 1997, was held in Kuala Lumpur from 11 to 14 April 2000. The Conference, held for the first time in conjunction with the sixth meeting of the Permanent Committee on Geographic Information System Infrastructure for Asia and the Pacific, was attended by 200 representatives and observers of 33 countries and territories[1] and 8 non-governmental and international scientific organizations.[2] The Conference elected the representative of Malaysia as President.

2. The provisional agenda of the Conference was prepared by the Fourteenth United Nations Regional Cartographic Conference for Asia and the Pacific (Bangkok, February 1997). The Conference has been recognized as a regional forum where governmental officials, planners, scientists and experts from Asia and the Pacific and other regions address common needs, problems and experiences in the field of cartography and geographic information, including educational and training aspects, scientific and technological requirements, implementation issues and benefits. The Conference considered reports on the status of the resolutions adopted by the Fourteenth Conference, the progress made in the development and implementation of national spatial data infrastructures since the Fourteenth Conference and the specific contributions of cartography and geographic information in support of the implementation of Agenda 21.[3]

3. The work of the Conference was organized around five technical committees established to deal with a range of specific issues pertinent to cartography, surveying, mapping, land management, geographic information system (GIS) technology and spatial data infrastructure (SDI) in support of sustainable development, as defined by an agenda item of the Conference. Committee I, on cadastral issues, was chaired by the representative of Commission 7 of the International Federation of Surveyors; Committee II, on regional geodetic infrastructure, was chaired by the representative of Malaysia; Committee III, on fundamental data, was chaired by the representative of the International Steering Committee for Global Mapping; Committee IV, on development needs, was chaired by the representative of the Economic and Social Commission for Asia and the Pacific; Committee V, on geographical names, was chaired by the immediate past Chairman of the United Nations

* E/2000/100.

00-43419 (E) 020600

Group of Experts on Geographical Names, Asia South-East, Pacific South-West Division.

4. The Conference adopted nine resolutions. The resolutions reflected both the geographic information issues expressed in plenary sessions and specific matters debated in the five technical committees of the Conference. The proceedings of the Conference will be issued in one volume, containing the report of the Conference and the resolutions adopted. The technical papers submitted to the Conference were distributed to the participants and will be published on the Committee's web site and made available on CD-ROM.

Findings

5. The Conference reviewed and acknowledged with appreciation the work performed by the Permanent Committee on GIS Infrastructure for Asia and the Pacific during the past three years. The Conference recognized the importance of continuing the development of a regional geodetic infrastructure with particular emphasis on a regional vertical datum, sharing fundamental data through the development of regional data sets and appropriate mechanisms and identifying essential priorities for development needs relating to national spatial data infrastructure policy and programmes, geodesy, GIS standards, cadastral systems and digital mapping. The Conference also acknowledged the importance of continuing the pilot project dealing with administrative boundaries, assisting in the development of a national spatial data infrastructure, producing a glossary of terms, data dictionaries and metadata and clarifying the concept of a clearing house. The Conference reviewed the status of the resolutions adopted by the Fourteenth Conference and acknowledged that the proposed prototype of a monitoring system developed by the Committee in consultation with the Statistics Division of the Department of Economic and Social Affairs constituted a good mechanism for assessing the implementation of the resolutions.

6. Country reports were provided by 14 of the countries represented at the Conference: Australia, Brunei Darussalam, China, Fiji, Germany, India, Indonesia, Japan, Mongolia, New Zealand, Republic of Korea, Russian Federation, Singapore and Thailand. Major trends in the Asia and Pacific region, according to the reports, include: (a) the significant and continuing contribution of surveying, mapping and charting to the implementation of Agenda 21 and sustainable development; (b) progress in the adoption and recognition of the concept of SDI, acceleration in the implementation of national SDI programmes, particularly in the more developed countries, and the involvement of many countries in the implementation of regional and global SDI; (c) the strengthening of communication and cooperation among countries in the region for the acquisition and sharing of spatial data through the activities of the Committee. Even though country reports were not delivered in plenary session there was an opportunity for questions and answers, and national programmes were nonetheless addressed in the respective technical committees.

7. The Conference, through the work of Committee I on cadastral issues, presented and discussed relevant aspects of the United Nations and International Federation of Surveyors Bathurst Declaration on Land Administration for Sustainable Development, the raising of awareness of cadastral and land administration issues in government and the wider society, the need to consider the economic options in cadastral reform and land administration systems and the importance of involving local communities in cadastral reform. This Committee also addressed issues related to the importance of quantifying the linkage between cadastral systems and sustainable development, the need to quantify the performance of cadastral and land administration systems, the need to recognize the difficulties in integrating cadastral and topographic data at the national level and the need for care when developing International Organization for Standardization standards so they are not overly influenced by local issues. The need to establish a working group within the Permanent Committee was addressed by the Conference. This working group will investigate appropriate administrative infrastructures for marine cadastre, study land administration issues and develop country profiles that describe the status of cadastre and land administration.

8. In addressing the regional geodetic infrastructure issue, the Conference, through the work of its Committee II on geodesy, acknowledged the progress made during the past three years on the implementation of a common geodetic network for the Asia and the Pacific region as the basis for regional GIS applications. The Committee reported that a regional geodetic network had been established through three geodetic campaigns (in 1997, 1998 and 1999), a

regional horizontal datum had been defined and regional vertical datum strategies were under investigation. Those matters were discussed by the Conference. It was noted that a number of techniques employed, in particular the global positioning system, produced valuable results and also achieved a degree of technology transfer for participating members, particularly in the developing countries that participated. The Conference, encouraged by these achievements, stressed continuing the development and improvement of the regional geodetic infrastructure as the homogeneous positional framework for the regional infrastructure.

9. The Conference, through the work of Committee III on fundamental data, noted with appreciation the progress made on the technical questionnaire project, undertaken by the University of Melbourne in consultation with AUSLIG (the Australian national mapping agency), the PETIT (Pathfinder towards the European Topographic Information Template) prototype data set and the administrative boundaries pilot project. The importance of the pilot project was stressed, as it will provide feedback on the specifications for fundamental data sets and will test the policy on sharing fundamental data. Under the policy, member countries of the Permanent Committee agree to share fundamental spatial data in an easy, efficient and equitable manner in order to address regional economic, social and environmental issues. The types of data subject to the policy are being defined by the Permanent Committee and are generally at a map scale of 1:1 million. Member countries agree to operate under a set of management principles that describe custodianship responsibilities, access conditions, data content and compliance requirements, linkages to spatial data infrastructures at the national, regional and global levels and confidentiality, privacy, security and intellectual property considerations. The Conference adopted the proposed policy for sharing fundamental data, the composition of the fundamental data working group for the period 2000 to 2003 and the establishment of candidate data nodes in four countries. The Russian Federation expressed its interest in exchanging administrative boundary data with countries it has borders with and expressed its support to the working group activities. The Conference acknowledged GIS applications using satellite imagery undertaken by the Russian Federation.

10. Issues related to development needs were covered by the work of Committee IV. The Conference reviewed the work of the Permanent Committee's former Development Needs Task Force, which comprised Australia, the Islamic Republic of Iran, Japan and Malaysia, in particular the publication of a document defining the Asia-Pacific spatial data infrastructure, the drafting of a glossary of SDI terms, the circulation of a questionnaire, the conduct of a Pacific workshop and direct visits to countries to seek information on national surveys and seeking assistance for GIS development needs. The Conference acknowledged the Permanent Committee's Pacific workshop, held in Suva in March 1999, which helped in the completion of questionnaires for the Pacific countries and formed a Pacific Group to oversee the unique and special SDI-related interests of Pacific island nations in support of sustainable development. The Committee also dealt with important institution-strengthening issues, including those related to education and training and the need for information on and access to consistent educational and training programmes. The Conference recognized the need for a working group to carry on and broaden the work of the Task Force in institution-strengthening matters.

11. The work of Committee V, on geographical names, reported on continuing important issues, including the background of the formation of the United Nations Group of Experts on Geographical Names and the Conference on the Standardization of Geographical Names and some of its work, the principles of standardization and consistency, the importance of toponymic guidelines and examples of what may be included in them and identification of countries in the various divisions defined by the Group of Experts in the Asia and Pacific region. A number of documents from the United Nations and countries were circulated at the Conference, including examples of how to achieve a standardized approach to naming, toponymic guidelines and field collection of names.

12. Presentations from international scientific organizations highlighted the significant role of surveys, cartography and geodesy in globalization, in particular their involvement in and contribution in support of SPI initiatives. One presentation proposed that because of changes resulting from new information and communication technologies, the emergence of geo-information infrastructure concepts and the change from a system of natural monopolies providing a public

good to one of privatization and economic competition and efficiency, national mapping agencies need to consider their position in the spatial data community, particularly as regards the supply of and access to spatial data.

13. Technical cooperation programmes undertaken in the Asia and Pacific region by the Japan International Cooperation Agency were described. The increasing demand for the development of GIS data was noted along with the Agency's commitment to continue to assist developing countries in the region through geographic information programmes. The World Bank reported on land-related projects in developing countries, the lessons it has learned from those experiences and the implications of those experiences for international cooperation. The rationale for World Bank support for the land-related projects and policy reform in countries moving from centrally planned to market economies and other developing countries was also described. There is a need for greater sharing of spatial data (including cadastral data) at the national and international levels and for best practices in the design and implementation of land administration projects. It was noted that to increase the financial support necessary for the development of GIS or SDI, the donor funding approach, which is project-oriented and does not contribute to the acquisition of consistent national data sets, must be reconsidered. Non-governmental organizations continued to play a significant role in providing technical assistance for developing countries, such as GIS support in Pacific island nations.

14. The deliberations of the five committees of the Conference confirmed that the concept of spatial data infrastructure as part of the national infrastructure is becoming better understood. The challenge for the cartographic/SDI community is how to harness the enormous potential of geographic information and SDI technologies and go beyond local- and national-level applications to regional and global applications. It is becoming clear that developing national spatial data infrastructures will better facilitate availability and access to spatial data for governmental organizations, the private sector, universities and citizens in general. As well, ready access to the data required for crucial decision-making in support of social, economic and environmentally sustainable development is facilitated through spatial data infrastructures.

15. A list of the resolutions adopted by the Conference and the proposed provisional agenda for the Sixteenth Conference are attached (see annexes I and II). The activities recommended by the Conference and those required for the preparation of the Sixteenth Conference that are deemed to be of a continuing nature have been included under programme 7, subprogramme 5, of the medium-term plan for the period 2002-2005 (A/55/6 (Prog. 7)), and it is anticipated that they will be incorporated into the proposed programme budget for the biennium 2002-2003. Inclusion of these activities is not expected to give rise to additional expenditures. In the proposed programme budget for the biennium 2000-2001,[4] these activities, which are of a continuous nature, fall under section 9 (Economic and social affairs). Additional resources need to be sought for these activities every biennium.

Recommendations to the Economic and Social Council

16. In view of the continued and important contributions made by cartographic technologies and geo-information or SDI applications to decision makers, planners and the public at large and the essential contribution the United Nations Regional Cartographic Conference for Asia and the Pacific and the Permanent Committee on GIS Infrastructure for Asia and the Pacific continue to provide to member States in the geographic information field, the Conference recommended that the Economic and Social Council:

(a) Endorse its recommendation that the Sixteenth United Nations Regional Cartographic Conference for Asia and the Pacific be convened for five working days in mid-2003, with a primary focus on the continued and strengthened contribution of cartography and geographic information in support of the implementation of Agenda 21;

(b) Request the Secretary-General to take measures, where appropriate and within available resources, to implement the other recommendations made by the Fifteenth United Nations Regional Cartographic Conference for Asia and the Pacific. In particular, the United Nations should continue to support surveying, mapping and spatial data infrastructure activities in the Asia and Pacific region

and, *inter alia*, continue, within available resources, to facilitate the participation of the least developed countries and the small island developing States of the region.

Notes

[1] Australia, Brunei Darussalam, China, Colombia, Fiji, Germany, India, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Lao People's Democratic Republic, Malaysia, Mongolia, Nepal, New Zealand, Oman, Papua New Guinea, Peru, Philippines, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, Sri Lanka, Tajikistan, Thailand, Tonga, United Kingdom of Great Britain and Northern Ireland, Viet Nam, Holy See, Cook Islands and Hong Kong, China.

[2] The Association of South-East Asian Nations Federation of Land Surveying and Geomatics, the Permanent Committee on Geographic Information System Infrastructure for Asia and the Pacific, the United Nations Group of Experts on Geographical Names, the International Cartographic Association, the International Federation of Surveyors, the International Geodesy Association, the International Institute for Aerospace Survey and Earth Sciences and the GIS Forum South Asia.

[3] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: *Resolutions adopted by the Conference*, resolution 1, annex II.

[4] *Official Records of the General Assembly, Fifty-fourth Session, Supplement No. 6* (A/54/6/Rev.1).

Annex I

List of resolutions

1. Fundamental data
2. Institutional strengthening
3. Regional geodetic infrastructure
4. International Federation of Surveyors Bathurst Declaration on Land Administration for Sustainable Development
5. The establishment of a working group on the cadastre
6. Economic aspects of modern surveying, mapping, geospatial data infrastructure and land administration programmes
7. Promotion of national and regional geographical name standardization programmes
8. Cooperation with the United Nations geographic database initiative
9. Vote of thanks

Annex II

Provisional agenda for the Sixteenth United Nations Regional Cartographic Conference for Asia and the Pacific

1. Opening of the Conference.
2. Election of the President and other officers of the Conference.
3. Objectives of the Conference.
4. Organizational matters:
   (a) Consideration and adoption of the rules of procedure;
   (b) Adoption of the agenda;
   (c) Establishment of technical committees and election of chairmen and rapporteurs;
   (d) Organization of Conference work;
   (e) Credentials of representatives to the Conference;
   (f) Election procedures for the Permanent Committee on GIS Infrastructure for Asia and the Pacific.
5. Report of the Permanent Committee on GIS Infrastructure for Asia and the Pacific.
6. Reports of the United Nations Regional Cartographic Conference for Asia and the Pacific:
   (a) Implementation of the resolutions of the Fifteenth United Nations Regional Cartographic Conference for Asia and the Pacific;
   (b) Tabling of country reports.
7. Invited papers.
8. Conference technical committees.
9. Reports and resolutions:
   (a) Reports of the Conference technical committees;
   (b) Adoption of reports and action plans;
   (c) Adoption of resolutions.
10. Review of achievements of the Conference.
11. Provisional agenda of the Seventeenth United Nations Regional Cartographic Conference for Asia and the Pacific.
12. Organizational matters of the Permanent Committee on GIS Infrastructure for Asia and the Pacific:
   (a) Election of Executive Board;
   (b) Statutes;
   (c) Working groups;
   (d) Next meeting.
13. Adoption of the report of the Sixteenth United Nations Regional Cartographic Conference for Asia and the Pacific.